On page 20, line 9, change "5A" to -- 5, top profile, --.

On page 20, line 12, change "5B" to -- 5, middle profile, --.

On page 20, line 14, following "adduct peaks." please insert -- FIGURE 5, bottom profile, --.

On page 26, line 2, change "21" to -- 18 --.

IN THE CLAIMS:

Please amend the claims as follows.

Cancel claims 2-31 without prejudice.

Add new claims 32-101 as follows:

-- 32. (New) A probe that is removably insertable into a mass spectrometer, the probe having a surface for presenting an analyte to an energy source that emits energy capable of desorbing the analyte from the probe for analyte detection, wherein at least the surface comprises a non-metallic material.

33. (New) The probe of claim 32 wherein the surface is adhered to the probe magnetically.

34. (New) The probe of claim 32 wherein the surface comprises metal, metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

35. (New) The probe of claim 32 wherein the surface is coated with a synthetic polymer.

36. (New) The probe of claim 32 wherein the non-metallic material is substantially porous.

37. (New) The probe of claim 32 wherein the non-metallic material is substantially non-porous.

38. (New) The probe of claim 32 wherein the probe comprises stainless steel and the surface comprises a substantially porous material.

39. (New) The probe of claim 32 wherein the probe comprises stainless steel and the surface comprises a substantially non-porous material.

40. (New) The probe of claim 32 wherein the probe comprises glass.

41. (New) The probe of claim 32 wherein the probe comprises ceramic.

42. (New) The probe of claim 32 wherein the probe comprises a synthetic polymer.

43. (New) The probe of claim 36 wherein the porous material comprises sponge-like, polymeric, high surface areas.

44. (New) The probe of claim 37 wherein the non-porous material is selected from the group consisting of glass and polyacrylamide.

45. (New) The probe of claim 38 wherein the porous material comprises sponge-like, polymeric, high surface areas.

46. (New) The probe of claim 39 wherein the non-porous material is selected from the group consisting of glass and polyacrylamide.

47. (New) The probe of claim 43 wherein the porous material is selected from the group consisting of polypropylene, polystyrene, polyethylene, polycarbonate and nylon.

48. (New) The probe of claim 45 wherein the porous material is selected from the group consisting of polypropylene, polystyrene, polyethylene, polycarbonate and nylon.

49. (New) A method of desorbing an analyte from a probe surface comprising the steps of:

(a) providing a probe that is removably insertable into a mass spectrometer, the probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing the analyte from the probe for analyte detection, wherein at least the surface comprises a non-metallic material, and wherein the analyte is on the probe surface; and

(b) exposing the analyte to energy from the energy source, whereby the analyte is desorbed.

50. (New) The method of claim 49 wherein the energy source emits laser light that ionizes the analyte to produce an ion.

51. (New) The method of claim 49 further comprising after step (b) the steps of:

c) modifying the analyte chemically or enzymatically while deposited on the probe surface; and

d) repeating step (b).

52. (New) The method of claim 49 wherein the probe surface comprises an array of locations, each location having at least one analyte deposited thereon; and step (b) comprises desorbing a first analyte from a first location in the array;

and wherein the method further comprises the step of (c) desorbing a second analyte from a second location in the array.

53. (New) The method of claim 49 further comprising before step (b) the step of modifying the analyte chemically or enzymatically while deposited on the probe surface.

54. (New) The method of claim 49 wherein the surface comprises metal, metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

55. (New) The method of claim 49 wherein the surface is coated with a synthetic polymer.

56. (New) The method of claim 49 wherein the non-metallic material is substantially porous.

57. (New) The method of claim 49 wherein the non-metallic material is substantially non-porous.

58. (New) The method of claim 49 wherein the probe comprises stainless steel and the surface comprises a substantially porous material.

59. (New) The method of claim 49 wherein the probe comprises stainless steel and the surface comprises a substantially non-porous material.

60. (New) The method of claim 49 wherein the probe comprises glass.

61. (New) The method of claim 49 wherein the probe comprises ceramic.

62. (New) The method of claim 49 wherein the probe comprises a synthetic polymer.

63. (New) The method of claim 59 wherein the analyte comprises protein.

64. (New) A system for detecting an analyte comprising:

a removably insertable probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing the analyte from the probe, wherein at least the surface comprises a non-metallic material, and an analyte on the surface;

an energy source that directs energy to the probe surface for desorbing the analyte; and

a detector in communication with the probe surface that detects the desorbed analyte.

65. (New) The system of claim 64 which is a laser desorption mass spectrometer wherein:

the energy source emits laser light that ionizes the analyte to produce an ion,

the system further comprises means for accelerating the ion to the detector,

the detector detects the ion, and

the system further comprises means for determining the mass of the ion.

66. (New) The system of claim 64 wherein the energy source emits laser light.

67. (New) The system of claim 64 wherein the energy source emits plasma energy or fast atoms.

68. (New) The system of claim 64 wherein the energy source emits energy of a variety of wavelengths.

69. (New) The system of claim 64 wherein the detector detects ions.

70. (New) The system of claim 64 wherein the detector detects radioactivity or light.

71. (New) The system of claim 64 further comprising means for accelerating the desorbed analyte to the detector.

72. (New) The system of claim 64 wherein the surface is adhered to the probe magnetically.

73. (New) The system of claim 64 wherein the surface comprises metal, metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

74. (New) The system of claim 64 wherein the surface is coated with a synthetic polymer.

75. (New) The system of claim 64 wherein the non-metallic material is substantially porous.

76. (New) The system of claim 64 wherein the non-metallic material is substantially non-porous.

77. (New) The system of claim 64 wherein the probe comprises stainless steel and the surface comprises a substantially porous material.

78. (New) The system of claim 64 wherein the probe comprises stainless steel and the surface comprises a substantially non- porous material.

79. (New) The system of claim 64 wherein the probe comprises glass.

80. (New) The system of claim 64 wherein the probe comprises ceramic.

81. (New) The system of claim 64 wherein the probe comprises a synthetic polymer.

82. (New) The system of claim 75 wherein the porous material comprises sponge-like, polymeric, high surface areas.

83. (New) The system of claim 76 wherein the non-porous material is selected from the group consisting of glass and polyacrylamide.

84. (New) The system of claim 77 wherein the porous material comprises sponge-like, polymeric, high surface areas.

85. (New) The system of claim 78 wherein the non-porous material is selected from the group consisting of glass and polyacrylamide.

86. (New) A method for detecting an analyte comprising the steps of:

a) providing a system comprising:

(1) a removably insertable probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing the analyte from the probe, wherein at least the surface comprising a non-metallic material, and an analyte on the surface;

(2) an energy source that directs energy to the probe surface for desorbing the analyte; and

(3) a detector in communication with the probe surface that detects the desorbed analyte;

b) desorbing at least a portion of the analyte from the surface by exposing the analyte to the energy; and

c) detecting the desorbed analyte with the detector.

87. (New) The method of claim 86 wherein the system is a laser desorption mass spectrometer wherein the energy source emits laser light that ionizes the analyte to produce an ion, the detector detects the ion and the system further comprises means for accelerating the ion to the detector, and the method further comprises determining the mass of the ion.

88. (New) The method of claim 87 further comprising before step (b) the step of modifying the analyte chemically or enzymatically while deposited on the probe surface.

89. (New) The method of claim 87 further comprising after step (c) the steps of:

d) modifying the analyte chemically or enzymatically while deposited on the probe surface; and

e) repeating steps b) and c).

90. (New) The method of claim 86 wherein the probe surface comprises an array of locations, each location having at least one analyte deposited thereon; and step (b) comprises desorbing a first analyte from a first location in the array;

and wherein the method further comprises the step of:

d) desorbing a second analyte from a second location in the array; and

e) detecting the desorbed second analyte with the detector.

91. (New) The method of claim 87 further comprising the step of displaying the determined mass of the analyte.

92. (New) The method of claim 87 wherein the surface comprises metal, metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

93. (New) The method of claim 87 wherein the surface is coated with a synthetic polymer.

94. (New) The method of claim 87 wherein the non-metallic material is substantially porous.

95. (New) The method of claim 87 wherein the non-metallic material is substantially non-porous.

96. (New) The method of claim 87 wherein the probe comprises stainless steel and the surface comprises a substantially porous material.

97. (New) The method of claim 87 wherein the probe comprises stainless steel and the surface comprises a substantially non-porous material.

98. (New) The method of claim 87 wherein the probe comprises glass.

99. (New) The method of claim 87 wherein the probe comprises ceramic.

100. (New) The method of claim 87 wherein the probe comprises a synthetic polymer.

101. (New) The method of claim 87 wherein the analyte comprises protein. --

IN THE ABSTRACT:

Please delete the abstract and replace it with ~~the following:~~

-- This invention is directed to probes that are removably insertable into mass spectrometers. The probes have sample presenting surfaces, at least, that contain non-metallic materials. The probes are useful in methods of desorbing analytes from the probe surface. The invention also is directed to detection systems that include the probes and methods of detecting analytes using the system. --

REMARKS

Claims 1-32 were originally filed. Applicants have canceled claims 2-31 and added new claims 32-101. Applicants make these amendments expressly without prejudice to their right to present claims corresponding to the cancelled or amended